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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,078	09/23/2003	Jack Steenstra	030231	6292

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EXAMINER	
WEST, LEWIS G	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/670,078	STEENSTRA ET AL.	
	Examiner	Art Unit	
	Lewis G. West	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,21,22 and 34-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,21,22 and 34-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 September 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments with respect to claims 1-10 21-22 and 34-39 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 6-10 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (US 6,190,190) in view of Sonoda (US 6,181,782).

Regarding claim 1, Daly discloses an apparatus for use in a first device to receive digital data non-wirelessly from a second device and to transmit digital data non-wirelessly to the second device the apparatus comprising a single jack configured to receive analog signals encoded with the digital data from the second device and to transmit analog signals encoded with digital data to the second device; and a second conversion unit coupled to the single jack and configured to recover the digital data from the analog signal received from the second device (Col 3-4, Figures 5-6); , but does not expressly disclose the type of digital devices. Sonoda discloses a PDA (100) using a modem (17) for communicating digitally encoded analog signal. (Col. 3 line 15-62) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the devices of Daly may be PDAs, PDAs being digital devices

commonly used for business and personal use for storing data that may need to be transferred to another party, sometimes in the absence of a PC.

Regarding claim 2, the combination of Daly and Sonoda discloses the apparatus of claim 1, further comprising: a non-wireless communication device configured to couple with the jack, the non-wireless communication device configured to carry the analog signals encoded with digital data to the first device using the jack. (Col. 3 line 15-62)

Regarding claim 3, the combination of Daly and Sonoda discloses the apparatus of claim 2, wherein the non-wireless communication device comprises: a non-wireless medium having a first end and a second end; a first plug coupled to said first end and configured to couple to the jack; and a second plug coupled to said second end and configured to couple to a jack of the second device. (Daly figures5-6)

Regarding claim 6, Daly discloses a method for use in a first device to receive digital data non-wirelessly from a second device and to transmit digital data non-wirelessly to the second device, the method comprising: receiving analog signals encoded with the digital data from the second device using a single jack; and recovering the digital data from the analog signals received from the second device; encoding digital data in for analog signals; and transmitting the analog signals encoded with digital data to the second device using the single jack (Col 3-4, Figures 5-6), but does not expressly disclose the type of digital devices. Sonoda discloses a PDA (100) using a modem (17) for communicating digitally encoded analog signal. (Col. 3 line 15-62) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the devices of Daly may be PDAs, PDAs being digital devices commonly used for

business and personal use for storing data that may need to be transferred to another party, sometimes in the absence of a PC.

Regarding claim 7, the combination of Daly and Sonoda discloses the method of claim 6, further comprising: coupling a non-wireless communication device to the jack; and receiving the analog signals through the non-wireless communication device. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Regarding claim 8, the combination of Daly and Sonoda discloses the method of claim 7, wherein receiving the analog signals comprises: receiving the analog signals as audible analog signals. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Regarding claim 9, the combination of Daly and Sonoda discloses the method of claim 7, wherein receiving the analog signals comprises: receiving the analog signals electronically. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Regarding claim 10, the combination of Daly and Sonoda discloses the method of claim 6, further comprising: receiving perceptible sound using the jack. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Regarding claim 21, Daly discloses an apparatus for use in a first device to receive digital data non-wirelessly from a second device and to transmit digital data non-wirelessly to the second device, the method comprising: means for receiving analog signals encoded with the digital data from the second device using a single jack; and means for recovering the digital data from the analog signals received from the second device; means for encoding digital data in for analog signals; and means for transmitting the analog signals encoded with digital data to the

second device using the single jack. (Col 3-4, Figures 5-6), but does not expressly disclose the type of digital devices. Sonoda discloses a PDA (100) using a modem (17) for communicating digitally encoded analog signal. (Col. 3 line 15-62) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the devices of Daly may be PDAs, PDAs being digital devices commonly used for business and personal use for storing data that may need to be transferred to another party, sometimes in the absence of a PC.

Regarding claim 22, the combination of Daly and Sonoda discloses a non-wireless means for carrying the analog signals encoded with digital data to the first device using the jack. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (US 6,190,190) in view of Sonoda (US 6,181,782) further in view of Shin (6,006,109)

Regarding claim 4, the combination of Daly and Sonoda discloses the apparatus of claim 1, but does not expressly disclose a jack is configured to couple to either one of a headphone or a headset. Shin discloses modem (digitally encoded analog signal) communication over a connection through a headphone/headset jack, including transmission/reception through a single jack (520) (Col. 3 lines 31-55)

Regarding claim 5, the combination of Daly and Sonoda and Shin discloses the apparatus of claim 4, wherein the jack is configured to receive perceptible sound. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Claims 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (US 6,190,190) in view of Sonoda (US 6,181,782) further in view of Bannasch et al (US 2001/0055352).

Regarding claim 34, the combination of Daly and Sonoda the apparatus of claim 1, but does not disclose multi-carrier modulation. Bannasch shows modem communications using multi-carrier modulation using tones. (0020-0033) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use multi-carrier modulation for modulation as multi-carrier modulation is known to increase the amount of information sendable over a connection and reduce susceptibility to outside interference or jamming.

Regarding claim 35, the above combination discloses the apparatus of claim 34 further comprising, a sensor configured to detect whether a plug has been coupled to the single jack. (Sonoda, detection section 14)

Regarding claim 36, the combination of Daly and Sonoda the method of claim 6, but does not disclose multi-carrier modulation. Bannasch shows modem communications using multi-carrier modulation using tones. (0020-0033) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use multi-carrier modulation for modulation as multi-carrier modulation is known to increase the amount of information sendable over a connection and reduce susceptibility to outside interference or jamming.

Regarding claim 37, the above combination discloses the method of claim 36, further comprising: detecting via a sensor, whether a plug has been coupled to the single jack. (Sonoda, detection section 14)

Regarding claim 38, the combination of Daly and Sonoda the method of claim 21, but does not disclose multi-carrier modulation. Bannasch shows modem communications using multi-carrier modulation using tones. (0020-0033) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use multi-carrier modulation for modulation as multi-carrier modulation is known to increase the amount of information sendable over a connection and reduce susceptibility to outside interference or jamming.

Regarding claim 39, the above combination discloses the method of claim 38, further comprising: means for detecting, via a sensor, whether a plug has been coupled to the single jack. (Sonoda, detection section 14)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 571-272-7859. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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